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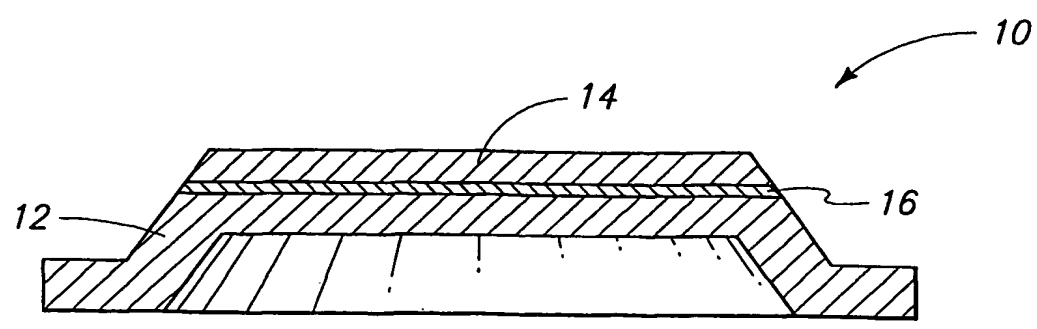
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(54) Title: PVD TARGETS COMPRISING COPPER IN TERNARY MIXTURES, AND METHODS OF FORMING COPPER-CONTAINING PVD TARGETS



(57) Abstract: The invention includes a physical vapor deposition target containing copper and at least two additional elements selected from Ag, Al, As, Au, B, Be, Ca, Cd, Co, Cr, Fe, Ga, Ge, Hf, Hg, In, Ir, Li, Mg, Mn, Nb, Ni, Pb, Pd, Pt, Sb, Sc, Si, Sn, Ta, Te, Ti, V, W, Zn and Zr, a total amount of the at least two additional elements being from 100 ppm to 10 atomic %. The invention additionally includes thin films and interconnects which contain the mixture of copper and at least two added elements. The invention also includes forming a copper-containing target. A mixture of copper and two or more elements is formed. The mixture is cast by melting and is subsequently cooled to form a billet which is worked utilizing one or both of equal channel angular extrusion and thermomechanical processing to form a target.

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